

10 extraction algorithm using a predetermined parameter for the two-dimensional image read out from said image storing section;

a displaying section for displaying an image of the defect of the subject extracted by said defect extracting section, as a defect image of the subject;

15 a parameter adjusting section for adjusting the parameter to change a defect extraction degree for the defect image of the subject displayed by said displaying section; and

a quality judging section for judging whether the subject is good or bad, by checking defect data extracted by said defect
20 extracting section with reference to defect data registered in advance in a defect dictionary,

wherein said defect extracting section extracts, as defect data, a defect of the subject based on a defect extraction algorithm using a new parameter adjusted by said parameter

25 adjusting section, and updates the defect image displayed by said displaying section.

22. (New) The defect inspection system according to claim 21, wherein said displaying section has a function of reducing sizes of defect images of a plurality of subjects subjected to defect extracting processing of said defect
5 extracting section, and displaying the defect images in a list, and a function of displaying results of judgment by said quality judging section, with color or characters, with respect to the defect images of the plurality of subjects.

23. (New) The defect inspection system according to claim 21, wherein said displaying section has a function of displaying, in a list, thumbnail images obtained by reducing sizes of defect images of a plurality of subjects subjected to defect extraction processing of said defect extracting section, a function of enlargedly displaying a specified one of the thumbnail images, and a function of specifying a defect portion on said specified one of the thumbnail images which is enlargedly displayed, to thereby display the kind of a defect which corresponds to the defect portion.

24. (New) The defect inspection system according to claim 21, wherein said displaying section has a function of reducing sizes of defect images of a plurality of subjects subjected to defect extraction processing of said defect extracting section, and displaying the defect images of the plurality of subjects in a list such that the defect images of the plurality of subjects are discriminated from each other with respect to whether each of the defect images is that of the subject judged to be good or bad by said quality judging section.

25. (New) The defect inspection system according to claim 21, wherein said displaying section displays an image of a defect extracted in parameter in accordance with the parameter adjusted by said parameter adjusting section, with a color of the

5 image of the defect changed in accordance with an extraction degree corresponding to the parameter.

26. (New) The defect inspection system according to claim 21, wherein said displaying section changes a color of the image of the defect which is to be displayed, in accordance with a change history of the parameter adjusted by said parameter
5 adjusting section.

27. (New) The defect inspection system according to claim 21, wherein said displaying section has a function of displaying a re-displaying button for changing the parameter adjusted by said parameter adjusting section back to a former
5 parameter, and a function of re-displaying the defect image extracted based on the former parameter, when the re-displaying button is clicked.

28. (New) The defect inspection system according to claim 27, wherein said displaying section has a function of comparing images respectively obtained based on the parameter adjusted by said parameter adjusting section and the former
5 parameter, and displaying a determination button for determining one of the parameters as an optimal parameter.

29. (New) The defect inspection system according to claim 21, wherein said quality judging section has a function of determining the kind of the defect by checking the defect data extracted by said defect extracting section with reference to the defect data registered in advance in the defect dictionary, and a function of registering new defect data in the defect dictionary.

30. (New) The defect inspection system according to claim 21, wherein said defect extracting section produces a recipe for determining the defect extraction degree, which serves as a reference for judging whether the subject is good or bad.

21
31. (New) The defect inspection system according to claim 21, wherein in said defect extracting section, a parameter for selecting a subject recognized in advance to be good is automatically set.

32. (New) The defect inspection system according to claim 21, wherein said parameter adjusting section is allowed to set upper and lower limit values of the predetermined parameter as threshold values for defect extraction, said defect extracting section extracts, as the defect data, the defect of the subject based on the defect extraction algorithm using the new parameter adjusted by said parameter adjusting section, and said displaying section displays the defect image extracted by said defect extracting section, after updating the defect image.

33. (New) The defect inspection system according to claim 32, wherein said displaying section displays the defect images of the plurality of subjects extracted by said defect extracting section such that thumbnail images of the defect
5 images are displayed in a list, and said defect extracting section extracts a defect as defect data based on the new parameter adjusted by said parameter adjusting section, and updates the thumbnail images.

34. (New) The defect image inspection system according to claim 32, wherein said defect extracting section extracts at least one of one or more image data exceeding the lower limit value, as the defect data, said at least one of one or more image
5 data exceeding the upper limit value.

35. The defect image inspection system according to claim 32, wherein said displaying section displays a slide switch for setting the upper and lower limit values in an area other than a defect image displaying area on a screen.

36. The defect image inspection system according to
claim 21, wherein said defect extracting section prepares a
plurality of groups of parameters for kinds of defects, kinds of
inspection conditions, kinds of inspection methods and kinds of
extraction methods, respectively, and said parameter adjusting
section adjusts the parameters of each of the groups.
